

Title (en)

ANALYSIS SOFTWARE AND DEVICE FOR EMBRYO SELECTION

Title (de)

ANALYSE-SOFTWARE UND -VORRICHTUNG ZUR EMBRYOAUSWAHL

Title (fr)

LOGICIEL D'ANALYSE ET DISPOSITIF DE SÉLECTION D'EMBRYON

Publication

EP 3812449 A4 20220323 (EN)

Application

EP 19824617 A 20190620

Priority

- JP 2018116833 A 20180620
- JP 2019024593 W 20190620

Abstract (en)

[origin: EP3812449A1] Disclosed are a software for analyzing images of a fertilized egg, the software providing a means for executing a process including: (a) a step of measuring the difference in area between the female pronucleus and the male pronucleus from images of a fertilized egg obtained in a period of 1 to 10 hours before the time of occurrence of male and female pronuclear membrane breakdown as a reference; (b) a step of measuring the difference in area between the female pronucleus and the male pronucleus from images of the fertilized egg obtained immediately before the time of occurrence of male and female pronuclear membrane breakdown as the reference; and (c) a step of storing the measured values of the area difference obtained in the step (a) and the area difference obtained in the step (b), to be readable at any time as needed, and an apparatus incorporating this software.

IPC 8 full level

C12M 1/34 (2006.01); **C12M 1/00** (2006.01); **G16H 40/60** (2018.01)

CPC (source: EP US)

A61B 90/20 (2016.02 - US); **A61B 90/361** (2013.01 - US); **C12M 21/06** (2013.01 - EP); **C12M 41/36** (2013.01 - EP); **C12M 41/48** (2013.01 - EP); **G06T 7/0016** (2013.01 - EP US); **G16H 40/60** (2018.01 - EP); **G06T 2207/10056** (2013.01 - EP US); **G06T 2207/30024** (2013.01 - EP US); **G06T 2207/30044** (2013.01 - EP US)

Citation (search report)

- [XYI] JUNKO OTSUKI ET AL: "Potential of zygotes to produce live births can be identified by the size of the male and female pronuclei just before their membranes break down", REPRODUCTIVE MEDICINE AND BIOLOGY, VOL. 16, N. 2, 1 April 2017 (2017-04-01), pages 200 - 205, XP055674746, Retrieved from the Internet <URL:https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5661814/pdf/RMB2-16-200.pdf> [retrieved on 20200309], DOI: 10.1002/rmb2.12032
- [Y] E SANTOS FILHO ET AL: "A review on automatic analysis of human embryo microscope images", THE OPEN BIOMEDICAL ENGINEERING JOURNAL, vol. 4, 1 January 2010 (2010-01-01), Netherlands, pages 170 - 177, XP055192640, DOI: 10.2174/1874120701004010170
- [A] CARRE D ET AL: "In vitro fertilization in ctenophores: Sperm entry, mitosis, and the establishment of bilateral symmetry in Beroë ovata", DEVELOPMENTAL BIOLOGY, ELSEVIER, AMSTERDAM, NL, vol. 147, no. 2, 1 October 1991 (1991-10-01), pages 381 - 391, XP024851250, ISSN: 0012-1606, [retrieved on 19911001], DOI: 10.1016/0012-1606(91)90296-F
- See also references of WO 2020004237A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 3812449 A1 20210428; **EP 3812449 A4 20220323**; JP 2020036580 A 20200312; JP 2023158209 A 20231026; US 12002210 B2 20240604; US 2021104046 A1 20210408; WO 2020004237 A1 20200102

DOCDB simple family (application)

EP 19824617 A 20190620; JP 2019024593 W 20190620; JP 2019114514 A 20190620; JP 2023146948 A 20230911; US 202017124729 A 20201217